



Standard Specifications

KF121J-D
KF121J-E

1st ed. 31-Aug-17
2nd ed. 27-May-25

Kawasaki Heavy Industries, Ltd.
Robot Business Division

Specification number : 90151-0222DEB

Materials and specifications are subject to change without notice.

1. Specification of Robot (Floor and Ceiling mounted)

[1] Robot Arm

1. Model	KF121J-D														
2. Type	Articulated Robot														
3. Degree of Freedom	6 axes														
4. Axis specification	Operating Axis	Max. operating range	Max. Speed												
	Arm Rotation (JT1)	±160 °	220 °/s												
	Arm Out-in (JT2)	+ 90 ~ - 90 °	120 °/s												
	Arm Up-down (JT3)	+ 150 ~ - 150 °	240 °/s												
	Wrist Swivel (JT4)	±270 °	430 °/s												
	Wrist Bend (JT5)	±145 °	430 °/s												
	Wrist Twist (JT6)	±360 °	720 °/s												
5. Repeatability	±0.2 mm (at the tool mounting surface)														
6. Max. Payload	5 kg														
7. Max. Linear Speed	5000 mm/s (at the tool mounting surface) (Maximum Linear Interpolation Speed : 1500 mm/s)														
8. Load Capacity of Wrist	<table><tr><td></td><td>Max. torque</td><td>Moment of inertia*</td></tr><tr><td>JT4</td><td>7.8 N• m</td><td>0.17 kg• m²</td></tr><tr><td>JT5</td><td>7.8 N• m</td><td>0.17 kg• m²</td></tr><tr><td>JT6</td><td>2.9 N• m</td><td>0.06 kg• m²</td></tr></table>				Max. torque	Moment of inertia*	JT4	7.8 N• m	0.17 kg• m ²	JT5	7.8 N• m	0.17 kg• m ²	JT6	2.9 N• m	0.06 kg• m ²
		Max. torque	Moment of inertia*												
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	JT5	7.8 N• m	0.17 kg• m ²												
	JT6	2.9 N• m	0.06 kg• m ²												
Note* Each value in this table shows allowable payload moment of inertia of JT4/JT5/JT6 when max. allowed torque is applied to each axis. If more detailed data is required for your application, please contact Kawasaki.															
9. Driving Motor	Brushless AC Servomotor														
10. Working range	Refer to Fig.1														
11. Mass	140 kg (excluding options)														
12. Color	White (Munsell:10GY9/1 equivalent)														
13. Installation	Floor and Ceiling mounted														
14. Environmental Condition	(Temperature) 0-40 (Humidity) 35-85 % No dew, nor frost allowed														
15. Explosion Proof	Pressurized and Intrinsically Safe														
16. Air Supply to the Robot	Clean & dry air: 0.3 Nm ³ /min, 0.3-0.7 MPa Dew point: -17 or less at atmospheric pressure.														
17. Option	Installation Base	Robot Pedestal 600 mm / 300 mm Base Plate (750 mm x 750 mm)													
	Mechanical Stopper JT1														
18. Others	Consult Kawasaki about maintenance parts and spare parts.														

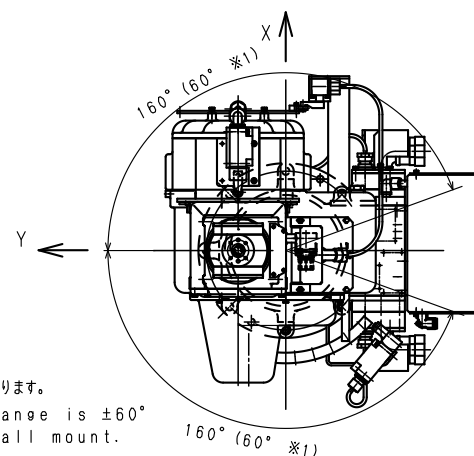
1. Specification of Robot (Wall mounted)

[1] Robot Arm

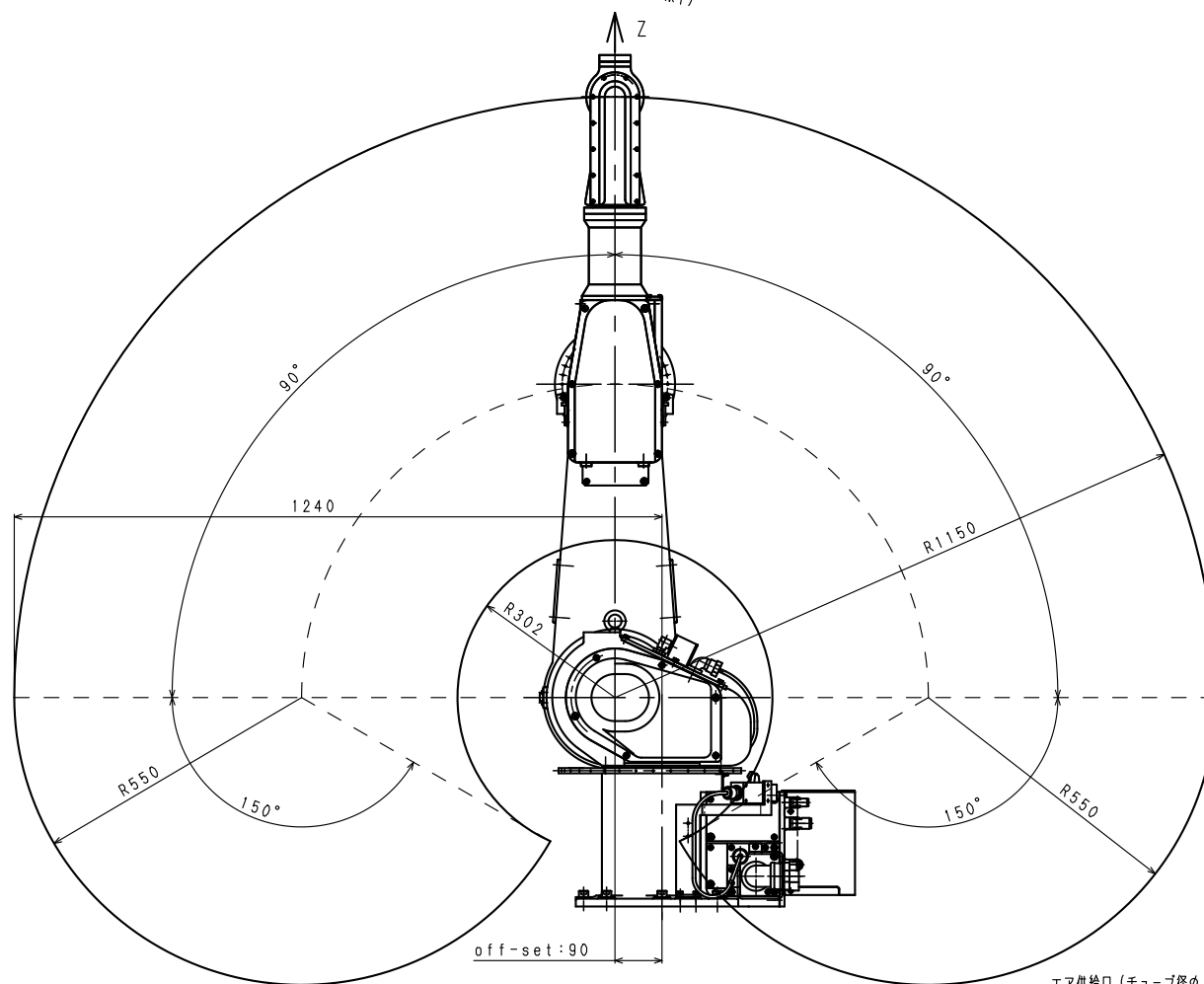
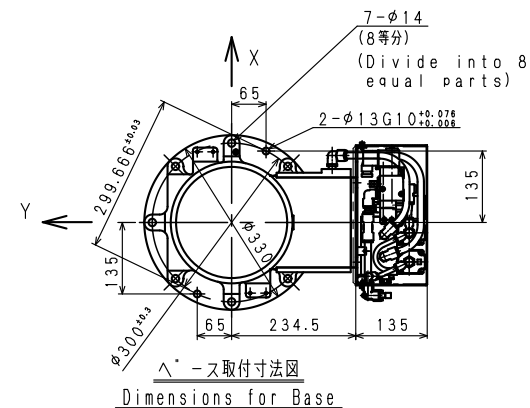
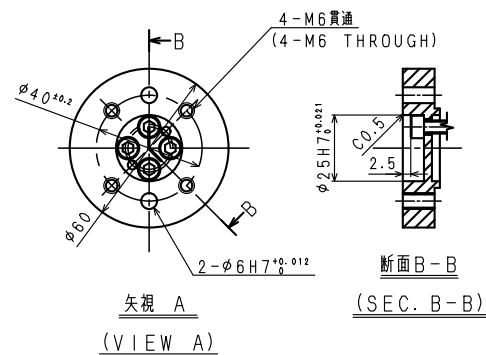
1. Model	KF121J-E														
2. Type	Articulated Robot														
3. Degree of Freedom	6 axes														
4. Axis specification	Operating Axis	Max. operating range	Max. Speed												
	Arm Rotation (JT1)	±60 °	120 °/s												
	Arm Out-in (JT2)	+ 90 ~ - 90 °	120 °/s												
	Arm Up-down (JT3)	+ 150 ~ - 150 °	240 °/s												
	Wrist Swivel (JT4)	±270 °	430 °/s												
	Wrist Bend (JT5)	±145 °	430 °/s												
	Wrist Twist (JT6)	±360 °	720 °/s												
5. Repeatability	±0.2 mm (at the tool mounting surface)														
6. Max. Payload	5 kg														
7. Max. Linear Speed	3600 mm/s (at the tool mounting surface) (Maximum Linear Interpolation Speed : 1500 mm/s)														
8. Load Capacity of Wrist	<table><tr><td></td><td>Max. torque</td><td>Moment of inertia*</td></tr><tr><td>JT4</td><td>7.8 N• m</td><td>0.17 kg• m²</td></tr><tr><td>JT5</td><td>7.8 N• m</td><td>0.17 kg• m²</td></tr><tr><td>JT6</td><td>2.9 N• m</td><td>0.06 kg• m²</td></tr></table>				Max. torque	Moment of inertia*	JT4	7.8 N• m	0.17 kg• m ²	JT5	7.8 N• m	0.17 kg• m ²	JT6	2.9 N• m	0.06 kg• m ²
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10. Working range	Refer to Fig.1														
11. Mass	140 kg (excluding options)														
12. Color	White (Munsell:10GY9/1 equivalent)														
13. Installation	Wall mounted														
14. Environmental Condition	(Temperature) 0-40 (Humidity) 35-85 % No dew, nor frost allowed														
15. Explosion Proof	Pressurized and Intrinsically Safe														
16. Air Supply to the Robot	Clean & dry air: 0.3 Nm ³ /min, 0.3-0.7 MPa Dew point: -17 or less at atmospheric pressure.														
17. Option	Installation Base	Base Plate (750 mm x 750 mm)													
	Mechanical Stopper JT1														
18. Others	Consult Kawasaki about maintenance parts and spare parts.														

添付図1 (Fig. 1)

KF121J
全体動作図
MOVEMENT &
DIMENSIONS



※1. 壁掛け仕様は±60°となります。
JT1 motion range is ±60°
in case of wall mount.



Purging air inlet port
(Tube diameter $\phi 12$)

